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Judith McIntosh White
University of New Mexico, jmw49@unm.edu

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Barriers to Museums' Informal Efforts to Facilitate Public Engagement with Science

JUDITH MCINTOSH WHITE

*Associate Professor, Communication & Journalism
University of New Mexico
Albuquerque, New Mexico
jmw49@unm.edu*

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This project embodies the author's response to Alan Irwin's essay (2014) calling for social scientists to "exercise greater imagination in helping foster a culture of experimentation in citizens' responses to scientific fact and policy, thus acting to pluralize practice and offer ways of thinking that embrace different levels and ways of knowing". In particular, this research focuses on museums as sites of public engagement with science through their participatory curricula. The author believes such curricula hold potential for building lay leadership skills by educating members of the public to employ mechanisms necessary to facilitate a type of deliberative democracy, giving birth to engagement as applied to science issues and policies. These necessary mechanisms, as listed by Ryfe (2005, 2006), comprise rules, stories, leadership, stakes, and apprenticeship.

The reported study conducted four qualitative case studies of participatory museum curricula and sought to identify the extent to which such experiences may foster development of deliberative democracy mechanisms in members of the lay public. The author had initially posited that the experiences of interacting with museum scientists and educators would introduce lay participants to the "rules" of science and give them a "stake" in the scientific enterprise through their experience of a short course or internship in a scientific discipline. In addition, the author believed that these experiences help participants to craft a "science narrative" which both uses and embellishes the language of scientists, building solidarity in the scientific enterprise, and contribute to building a core of leaders who may take initiative in engaging with science issues and policies outside the realm of their particular museum-based experience.

However, in the course of collecting data through qualitative interviews and analysis of exhibits at four museum sites, the author discovered that, although participatory museum curricula may contain the seeds of public engagement with science, in one large Southwestern state such curricula and experiences face severe barriers. At two of the sites visited, these barriers centered on financial retrenchment that limited staff outreach and on-site programming. While a third site shared financial straits, the experiences it could offer the public were also limited by policy considerations, e.g., who was "cleared" to be on certain archeological dig sites. Only one site met the criteria being able to offer extensive science curricula and experiences to multiple sectors of the lay public.

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Thus, while the author maintains that museums may constitute sites of rich encouragement for public engagement through developing the tools of deliberative democracy, this study's limited results point to significant barriers, both financial and systemic, that prevent museums from delivering such encouragement. More comprehensive study, with a larger sample, would contribute to the development of the thesis advanced here.

Institutional Review Board approval has been granted for this study, with data collection to be completed in July, 2016. Full study report has not been completed.

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